



Upcoming Events

May 23 Our Annual General Meeting will be held from 7 to 9 p.m. at Corran Ban Hall (1231 Rte 6). Our guest speaker for the evening will be Todd Dupuis, who works in the Department of Communities Land and Environment as Executive Director for Environment. Todd will discuss "The potential impacts of climate change on the Winter River-Tracadie Bay watershed." Everyone is welcome and encouraged to attend.

June 10 Join our annual hike on the Winter River Trail. Don't forget your camera! The trail is home to some great areas of Lady's Slipper plants, which we hope to see in bloom. Meet at the trail head (145 East Suffolk Road Extension in Suffolk) at 10am. We will have our knowledgeable volunteers to answer your questions about plants and animals that you may see along the way.

Check WinterTracadie.ca and [Facebook.com/WRTBWA](https://www.facebook.com/WRTBWA) for updates and information about more events.

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Above: Staff appreciation day 2016: canoe trip around Tracadie Bay (volunteer John Hughes with staff members Amber, Emily, Vicki, Steve, and Hilary)
Below: Snowshoe hike participants.



Community Events Last Year

- School field trips (June 2016)
 - ◊ West Royalty Elementary (75 students)
 - ◊ West Kent Elementary (44 students)
 - ◊ L.M. Montgomery Elementary unfortunately had their field trip cancelled due to rain three times!
- Lady Slipper Hike (June 2016)
- Gold cup and saucer parade (August 2016)
 - ◊ Our float showed some activities that we do in the watershed (tree planting, education), and ways that people use water (shower, car wash, gardens)
- Snowshoe hike on Winter River trail (Feb 2016) - almost 100 people took part in this annual event.
- Draft *Water Act* presentation to government (March-April 2017)



Our parade float: built on a hay wagon, pulled by a shiny new tractor from Reddin Equipment, and filled with waving kids and staff members.
Photo by Heather Mullen.

We are now a registered charity

After much effort and paperwork over the past two years, we successfully became a registered charity, effective as of April 1, 2016. As a charity we can issue tax receipts for donations, and qualify for new funding opportunities. Donations also help us leverage more funding from the government, which can double the impact of your contribution.

We have made it easy for you to donate online through a secure website

WinterTracadie.ca/donate

Another way to help: Sign up as a supporter to be informed about fun events, group updates, and what we are working on in the field. Don't worry we won't fill your inbox with daily or weekly emails! We only send notes when there is something important we need to share widely.

Just enter your information using this handy link: **WinterTracadie.ca/Support**



Water Use Makeover Program

To reduce water extraction from Winter River, we introduced a project in 2016 that offers low flow toilets, shower heads, rain barrels, and more to participants at a very low cost.

Participants must live in Charlottetown and have a water meter. We are tracking progress with before and after surveys, and comparing water bills before and after participating.

This is a 3-year project supported by Environment and Climate Change Canada.

We are still accepting new participants, so tell your friends and family in Charlottetown about this project.

More information: wintertracadie.ca/water-makeover
facebook.com/watermakeover

We would like to thank our funding partners for their support of our work in 2016.

Federal programs:

- Canada Summer Jobs
- EcoAction
- Recreational Fisheries Conservation Partnership Program

Provincial programs:

- Greening Spaces Program
- Jobs for Youth
- Watershed Management Fund
- Work Experience PEI

Other grants:

- City of Charlottetown
- Colleges and Institutes Canada: Clean Tech Internship
- Mountain Equipment Co-operative: Capacity Building Grant
- Percé Program
- Wildlife Conservation Fund

Canada 

Prince
Edward
Island
CANADA 


CHARLOTTETOWN

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Clean Tech Internship

 PERCÉ

 MEC


Your Conservation Dollars at Work

What can bugs teach us about our watershed?

We started using a new monitoring technique in 2016— the Canadian Aquatic Biomonitoring Network (CABIN) protocols developed by Environment and Climate Change Canada (ECCC). We sampled 9 sites using this method.

This program requires on-site measurements and samples for laboratory analysis. We measured nitrates, dissolved oxygen, phosphate, total suspended solids, stream substrate (sizes of rocks on the stream bottom from silt to gravel to boulders), and stream channel measures (width, water depth, flow, etc.). We also recorded surrounding land use and vegetation.

The key part of this program involves collecting bugs. The benthic aquatic invertebrates (bugs that live in the water at the bottom of streams) are collected in a specific way, preserved, and then sent to a professional taxonomist (expert at looking at a bug and figuring out it's scientific classification) to identify.

We put our data into a model developed by ECCC which explains the what the results really mean. For each site, this model compares the bugs that we found, with bugs that should be expected in a healthy stream that has the same physical features (same temperature, bedrock, etc.). We determined that two areas were healthy, two diverged quite a lot from healthy conditions, and the other five sites had a mixture of data, where some metrics indicated healthy conditions, and some indicated a something was having an effect on the site.

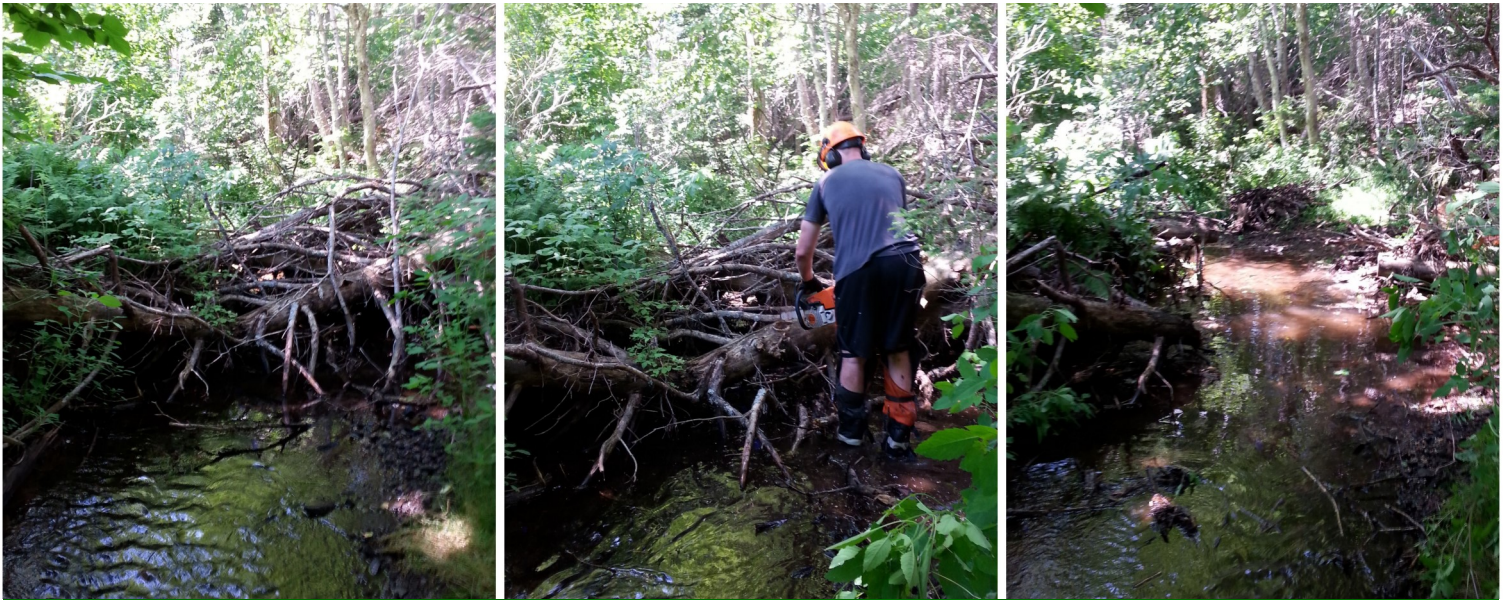
Sites can be considered unhealthy ecosystems for a number of reasons. At Union Road, the water extraction from the City of Charlottetown leaves little natural water flow for the ecosystem. Below large ponds, water is warmer and water flows are steadier than in a small stream. Agricultural impacts are a big factor in some parts of the watershed. Collecting data at the same sites over many years will help us tell us whether conditions are improving or getting worse.



Top: Steve is using the kick net to collect bugs from the bottom of Tim's Creek.

Middle: A map of our sampling sites, green are ecosystems with little human disturbance. Yellow are moderately disturbed. Red are the most disturbed sites we sampled.

Bottom: Hilary measuring water quality.



Before: A large blockage in the Black River. During: Steve hard at work with the chainsaw. After: Improved fish passage and water flow.

2016 Field Work

Field crew: Amber Fox, Emily Dennis, Fawn Maika, Jill Poirier, Steven Corkum, Tate Saulnier, Tessa Doncaster, and Vicki Johnson.

Supervisor: Hilary Shea

Watershed Coordinator: Sarah Wheatley

Cleared debris and blockages from 10 km of streams.

We covered a long distance on some small streams.

Installed 15 cover logs throughout the Winter River. In areas where there aren't many natural places for fish to hide from predators, these structures can help.

Planted 850 trees and shrubs. Trees planted last year were all assessed and pruned. Trees from previous years were pruned in areas where there was winter damage.

Constructed 1 large, 6 medium, and 2 small brush mats. Brush mats perform many functions including capturing silt from the water, narrowing stream channel, and providing habitat for small fish. Maintenance was conducted on brush mats constructed in previous years to keep them functioning well.

Surveys: We collected data to help us plan for future projects, such as headwater stream lengths, locations of trout redds (spawning sites, like nests for fish eggs), beaver activity, whether culverts are problems for fish, and general stream assessments identifying many different points of interest.

Silt trap excavation. We have three silt traps in the watershed - areas where we have created a deep pool to slow water flows and allow silt to settle out. When these fill up, we hire heavy equipment operators to remove the accumulated silt (150 m³ or over 200 metric tons this time) and then start the process all over again.



Field crew members working on a brush mat (before & after)



WINTER RIVER - TRACADIE BAY
WATERSHED ASSOCIATION

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